



CRP-GLDC Innovation



RESEARCH
PROGRAM ON
Grain Legumes and
Dryland Cereals



GETTING YOUTH BACK TO AGRICULTURE AS SERVICE PROVIDERS



Flagship 6 - Common bean for markets and nutrition



- Pan Africa Bean Research Alliance (PABRA)
- Alliance of Biodiversity International and International Center for Tropical Agriculture (CIAT)
- Tropical Legume III Project, Improving Bean Productivity and Marketing in Africa



- Soybean Innovation Lab, Missouri State University
- Grains Legumes and Dry Land Cereals (GLDC)



Every year, Tanzanian smallholder farmers invest around 1.35 billion hours and USD 28/ton to manually thresh their crops. What would it mean to those farmers if they can save 1.2 billion hours from this farming activity, while spending only USD 15/ton? In 2019, the the Alliance for Bioversity International & International Centre for Tropical Agriculture (CIAT) and Tanzania Agriculture Research Institute (TARI); both members of the Pan- Africa Bean Research Alliance ([PABRA-Africa](#)), collaborated with the Soybean Innovation Lab, Missouri State University to train 23 local artisans on manufacturing Multi-Crop Threshers (MCT) in Tanzania. **This service would provide gainful employment to rural youth and reduce the burden on smallholder farmers (particularly women) by mechanizing drudgery and time intensive farm activities.**



Post successful completion one such training, Imara Tech, a youth-owned company based in Arusha, upgraded their prototype from heavy tractor pulled thresher to easily motorbike transported machine that threshes up to eight staple grains including beans. MCT saves time and maintains grain quality (free from breakage and impurities compared to the hand threshing method or tractor), carried on a motorcycle, from farm to farm offering services during harvest season. Women and children who were often involved in threshing now have time for economically productive activities and also attend schools respectively.

To gainfully **in African region** Since
employ rural youth **2019**



In two years following this training from PABRA, hard to reach farmers are now accessible to these youth owners who carry Imara Tech's portable MCTs to provide threshing services during harvest season while earning incomes up to US\$ 5.3 /hr or US\$ 19.5/ton through threshing services.

Launched in 2019, Imara Tech's primary location of implementation was Arusha, Tanzania. In the two years since fabricating the Multi Crop Thresher (MCT), Imara Tech has manufactured and sold 420 MCTs in 17Tanzanian districts, 10 threshers in Uganda and Kenya each, two in Zambia and Zimbabwe and one in Burundi making a profit of USD 25,812 (Tsh. 688,000,000) with 20 agents in 3 regions of Arusha, Kilimanjaro, and Manyara. With recognition and funding from agencies, 49 (10 are permanent employed and 40 out sourced during the busy seasons) local artisans have been trained since in the MCTs fabrication.

Mechanisations of small farms will not only improve the livelihoods smallholder farmers, but also creates thousands of jobs for rural youth who can deliver such mechanised services them. PABRA has catalyzed youth-led enterprises in manufacturing and marketing MCTs and threshing services.

As a **Stage 4** and a **Maturity level 3** innovation, these businesses have been taken up by users and are contributing to poverty reduction, livelihoods & jobs, gender equality, youth & social inclusion. Policy and/or practice changes influenced by these innovative business models have led to adoption or impacts at scale or beyond the direct CGIAR sphere of influence. Among others, this is evidenced by adoption and use of the multi-crop thresher that has significantly contributed towards closing the gender gap exhibited in farm activities, particularly in bean production.



A prominent hallmark of the multi-crop thresher is economic empowerment through the creation of business opportunities. Service provision creates a direct source of income for young entrepreneurs. Also, each thresher requires three workers – to feed the thresher with pods, to control the thresher and to direct the straw. The multiplier effect is huge in terms of increased household income, access to education etc.



<http://glfdc.cgiar.org>



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